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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 08/715,724 | 09/19/1996 | PHILLIP E. WILSON | 6000 | 4961 |

7590

06/25/2003

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EXAMINER

JUSKA, CHERYL ANN

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 06/25/2003

32

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/715,724

Applicant(s)

WILSON ET AL.

Examiner

Cheryl Juska

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. Amendment G, submitted as Paper No. 31 on April 22, 2003, has been entered. Claim 2 has been amended as requested and claims 4, 14, 15, 17, 20, and 21 have been cancelled. Thus, the pending claims are 2, 3, 9, and 10.
2. The indicated allowability of claims 2, 3, 9, and 10, by way of a reversal of the rejections for said claims by the Board of Patent Appeals in the decision rendered on November 21, 2002, is withdrawn in view of a misinterpretation by the Board of the Lin reference and in view of the newly discovered reference to Hoyt. A rejection based on the newly cited reference follows.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,447,794 issued to Lin in view of US 5,468,555 issued to Lijten et al., and in further view of US 5,340,886 issued to Hoyt et al.

Applicant has amended claim 2, which includes the limitation that the sheath nylon has an amine end group (AEG) concentration of less than 30 meq/kg, to be in independent form. Claim 3 limits said sheath nylon AEG concentration to less than 5 meq/kg. Claims 9 and 10

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limit the AEG concentration of the core nylon to be about 5-100 and about 20-50 meq/kg, respectively.

In the decision rendered by the Board of Appeals, the 103 rejections of claims 2, 3, 9, and 10 were reversed due to the AEG concentrations limitations. However, it is respectfully submitted that the Board erred in-part in its decision.

The Board states the following at page 7 of the decision:

The examiner argues that because Lin's nylon 6, nylon 6,6, and nylon 6,12 are the same as those used by the appellants, the fibers of Lin and the appellants inherently have the same number of titratable amino end groups, i.e., less than 30 milliequivalents per kilogram (answer, page 8). *Lin's example 2, wherein the core is nylon 6,6, the sheath is nylon 6, 12, and the concentration of titratable amino end groups is about 50 milliequivalents per kilogram (col. 5, lines 6-8 and 14-15), indicates the examiner is incorrect.* The appellants obtain their level of titratable amino end groups by reacting amino end groups with blocking agents (specification, page 11, line 18-page 13, line 15). *The examiner has not established that the applied prior art discloses, or would have fairly suggested to one of ordinary skill in the art, providing a sheath having less than 30 milliequivalents per kilogram of titratable amino end groups either by blocking amino end groups or by another method.* (Emphasis added.)

The examiner agrees with the Board decision that the AEG concentrations are not inherent to the Lin invention. However, it is asserted that the Board misread Lin's teaching of Example 2. Specifically, Example 2 of Lin states the following at col. 5, lines 5-17:

This Example demonstrates the stain-resistance of nylon filaments having nylon 6,12 sheath polymer and **nylon 6,6 core polymer....Nylon 6,6 polymer having an RV of about 41 and amine ends of about 50 gram equivalents per million grams of polymer....**(Emphasis added.)

Thus, Lin's teaching of 50 meq/kg is directed to the nylon 6,6 **core** polymer, rather than the presently claimed **sheath** of nylon 6,12 having less than 30 meq/kg. In fact, applicant's AEG concentration of the nylon 6,6 core (i.e., claims 9 and 10) is claimed to be in the range of 5-100, or preferably, 20-50 meq/kg, which is explicitly taught by Lin.

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The Board's decision upholds the examiner's rejection of claim 20, as set forth in the prior Office Actions. Thus, amended claim 2, which incorporates the limitations of claim 20, is obvious over Lin in view of Lijten with the exception of the limitation to the nylon sheath having an amine end group concentration of less than 30 meq/kg, and preferably less than 5 meq/kg (i.e., claim 3). However, contrary to the Board's implication, Lin does not teach away from having said concentration. In fact, Lin *anticipates* applicant's AEG concentration for the *core* component, but is *silent* with respect to the AEG concentration of the *sheath* component. It is asserted that this limitation is obvious over the cited Lin and Lijten patents in view of Hoyt.

Hoyt teaches acid-dye resistant polyamide fibers comprising polyamide polymer having amine end groups blocked with a chemical blocking agent (abstract). Suitable polyamides are nylon 6, nylon 6,6, nylon 6,12, and nylon 12 (col. 4, lines 26-29). By blocking the AEG's with a blocking agent the available acid dye sites are reduced, thereby making the fiber acid dye resistant (col. 6, lines 38-47). The nylon fibers treated with a blocking agent have titratable AEG concentrations of less than 25 meq/kg, while lightly colored nylons may have concentrations in the range of 2-20 meq/kg (col. 7, lines 3-17).

Thus, it would have been obvious to one skilled in the art to employ a nylon treated with a blocking agent as taught by Hoyt for the sheath component of the Lin invention. Motivation to do so would be to further enhance the Lin fiber's resistance to acid-dyes by blocking the amine end group acid dye sites. Therefore, claims 2, 3, 9, and 10 are rejected as being obvious over the cited Lin, Lijten, and Hoyt references.

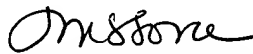
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Conclusion

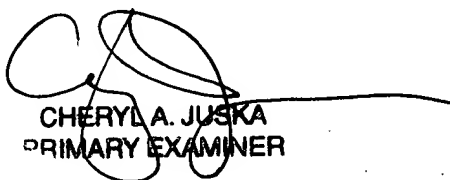
5. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


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CHERYL A. JUSKA
PRIMARY EXAMINER

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June 17, 2003